

Title (en)

Spiral taper cut and optimized moment capacity impact beam.

Title (de)

Aufprallträger mit schneckenförmiger und konischer Ausnehmung mit verbessertem Moment.

Title (fr)

Élément de renforcé à évidement conique en spirale et moment de flexion amélioré.

Publication

EP 0492995 A1 19920701 (EN)

Application

EP 91311815 A 19911219

Priority

- US 63109990 A 19901219
- US 71754391 A 19910619

Abstract (en)

A vehicle door impact beam (2,12) having an elongated tubular body with a central axis (17), the end portions (32,34) of the beam being taper cut to form inner termini (50,54) and outer termini (52,54) and opposite taper surfaces for each end, the included angle at the inner termini being greater than 180 degrees and the outer termini being less than 180 degrees. The end portion taper surfaces are specially configured so that the moment capacity at all positions along the length thereof is greater than the bending moment at such positions. The first, and preferably the second taper surfaces spiral from the inner terminus to the outer terminus through an angle of about 90 degrees. Preferably, the inner termini (50,54) of the two ends are on opposite sides of the beam, and the outer termini (52,56) of both ends are on the same side of the beam. <IMAGE>

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IPC 8 full level

B60J 5/00 (2006.01); **B60J 5/04** (2006.01)

CPC (source: EP)

B60J 5/0437 (2013.01); **B60J 5/0444** (2013.01)

Citation (search report)

- [A] EP 0235091 A2 19870902 - ALUSUISSE [CH]
- [A] EP 0395621 A1 19901031 - AUSTRIA METALL [AT]
- [A] DE 3709489 C1 19880714 - ALUMINIUM WALZWERKE SINGEN

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